Amendments to the Specification:

Please replace the title as follows:

~~HOLOGRAPHIC MULTIPLE RECORDING METHOD~~

HOLOGRAPHIC MULTIPLEX RECORDING METHOD

Please replace the paragraph beginning on page 2, line 15, with the following rewritten paragraph:

Due to the geometrical shape of the recorded gratings, Bragg selectivity (Bragg mismatch with respect to the amount of shift, or a moving amount at which diffraction efficiency is nearly zero when shift motion is performed by this distance from a position providing maximum diffraction efficiency) of the holograms is the highest in the X-axis direction, and ~~(Bragg mismatch with respect to the amount of shift, or a moving amount at which diffraction efficiency is nearly zero when shift motion is performed by this distance from a position providing maximum diffraction efficiency)~~ is several μm in the X-axis direction and is 100 to several hundreds μm in the Y-axis direction (see the abovementioned reference).

Please replace the paragraph beginning on page 5, line 14, with the following rewritten paragraph:

In summary, the above-described objectives are achieved by the following ~~aspects~~ embodiments of the present invention.

Please replace the paragraph beginning on page 13, line 10, with the following rewritten paragraph:

A holographic multiplex recording apparatus 10 is configured to include: a laser beam source 12; a beam expander 14 for expanding the beam diameter of the laser beam emitted from this laser beam source 12; a beam splitter 16 for splitting the laser beam having the beam diameter expanded by this beam expander 14 into a reference beam and an object beam; a reference optical system 22 for guiding the reference beam, which is the transmission beam of the abovementioned beam splitter 16, to a holographic recording medium 20; an object optical system 24 for guiding the object beam, which is the reflection beam of the abovementioned beam splitter 16, to the abovementioned holographic recording medium 20; an imaging optical system 26 which is arranged on a line extending the optical axis of the object beam having been projected onto the abovementioned holographic recording medium 20 via the abovementioned object optical system 24 ~~of the holographic recording medium 20~~ and having passed through the holographic recording medium 20; a position controller 28 for controlling a position with respect to the abovementioned reference beam and the abovementioned object beam; and a servo system 30 for detecting the position of the abovementioned holographic recording medium 20.

Please replace the paragraph beginning on page 21, line 9, with the following rewritten paragraph:

Subsequently, the same procedure as in that of the abovementioned ~~first~~ first-stage multiplex recording spot matrix $\underline{T}XY_1$ is followed to form the second-stage multiplex recording spot matrix $\underline{T}XY_2$ by shifting in the Y-axis direction by a shift amount ΔY as shown in Fig. 2(D). This is repeated until immediately before the total sum of the shift amount ΔY becomes the same as the pitch (2R) of the recording spot RS in the Y-axis direction to thereby form the last-stage multiplex recording spot matrix $\underline{T}XY_n$ (not shown). Thus, the multiplexing in the Y-axis direction is completed.

Please replace the paragraph beginning on page 21, line 19, with the following rewritten paragraph:

Here, the multiplexing may be completed at an earlier stage according to the amount of information to be recorded. Further, when the amount of information is previously known, the shift amount ΔX may be increased to attempt to decrease the ~~stroke~~ cross talk between pages.

Please replace the paragraph beginning on page 24, line 9, with the following rewritten paragraph:

This holographic multiplex recording method forms the recording spots by ~~repeating~~ carrying out a first-stage X-axis direction multiplex recording step to a last-stage X-axis direction multiplex recording step.